



November 11, 2008

Preparing Tollways for the Safety Challenge

By: ATSSA Chairman Henry A. Ross, Chairman, ATSSA

As Congress moves toward the reauthorization of the nation's transportation bill – *The Safe, Accountable, Flexible, Transportation Equity Act, A Legacy for Users (SAFETEA—LU)* – there is much discussion within the roadway community regarding alternative ways to fund roadway development and maintenance. A leading point in these discussions is tolling, and indeed, tollways are under development in a number of areas including the Miami, Fla. metro area, the Virginia side of the Washington, D.C. Beltway, and elsewhere.

One widely recognized and frequently discussed aspect of tolling is the ability of the project owner to directly charge the roadway user, including options based on variable rates. This capability is projected to have a positive effect on congestion by charging a higher price at peak travel times, thereby shifting some of the travel to off-peak hours. However, a key aspect of the project owner's business – *safety* – is rarely, if ever, discussed.

The Safety Factor

Approximately 40,000 people die every year on America's roadways. That equals roughly 80 fully loaded 747 jet airplanes crashing every year. The number of injuries is also staggering. In 2007, the overall number of traffic fatalities did fall to 41,059 – the lowest number recorded since 1994. But, that number is still too high.

Statistically, the good news is, America's interstate highways are the safest roads in the country, and today's vehicles are as safe as they have ever been. Separate data for tollways is not available in the Fatality Analysis Reporting System (FARS) Encyclopedia. To emphasize safety benefits to the motoring public, the focus should now be on roadway safety features.

The American Traffic Safety Services Association (ATSSA), an international roadway safety association, is focusing its SAFETEA-LU reauthorization policy on the goal of moving "*Toward Zero Deaths,*" with an emphasis on roadway safety features. ATSSA's vision of this proposal reads, "*Federal, state and local governments will unite with private industry toward a single overarching goal – to annually reduce roadway fatalities until we reach the goal of zero deaths on America's roadways.*"

The concept of setting a goal of zero deaths was first adopted in Sweden in 1997 as "*Vision Zero,*" and has since been adopted in several other countries, as well as a number of U.S. states including Minnesota, Utah, Washington and West Virginia. The American Association of State

Highway and Transportation Officials (AASHTO) has also set a goal of “halving” fatalities over the next 20 years.

Considerations and Solutions

Infrastructure safety should be an important element incorporated into all strategic plans for tollways, followed-up by effective marketing of a “safety message” to road users, emphasizing to them that tollways are among the safest roadways in the nation due to the installation of lifesaving roadway safety features.

There are many elements to consider for inclusion in tollway strategic plans, including older drivers. According to the Federal Highway Administration, persons age 75 and older have a higher motor vehicle fatality rate than any other age group except persons younger than 25. Additionally, per licensed driver, fatal crash rates rise sharply at age 70 and older. By 2020, one in four drivers will be over 65 years old. Making roadways safer for this ever-growing demographic not only benefits them, it benefits all drivers, of any age.

Take for example the use of larger font sizes on roadway signage. When a larger font-size is used, it not only communicates information more clearly and at a greater distance to all motorists, it also contributes to safety and mobility.

Additionally, uniformity in signage is important as well. Signage of all types, wherever the public is invited to travel, should conform to Federal standards.

Low-cost roadway safety solutions have also been extremely effective across the nation. States are reporting widespread installation of shoulder rumble strips, curve delineations, passing lanes, turn lanes, traffic signals, highway lighting, guardrail end treatments, median cable barrier, durable pavement markings, wider edge lines (six to eight inch), Intelligent Transportation Systems, and fluorescent, highly visible signs. All of these devices, once installed, immediately begin saving lives, and many of these items can be installed at a relatively low cost.

For example, structured pavement markings give an auditory and sensory “rumble” when a vehicle drifts out of its designated lane. Additionally, reflective pavement markings provide excellent delineation day or night, even in wet night conditions. Like structured pavement markings, reflective pavement markings also give the driver an auditory rumble when a vehicle drives on them.

Other pavement marking uses include horizontal markings and directional regulatory and advisory signs which redundantly reinforce the message of vertical signs with a very significant advantage – the driver’s eyes do not have to be averted from the road surface and the traffic ahead to read this added safety message.

The “Bible” of Traffic Control

Regardless of any individual authority’s “market position” regarding safety, there are some impending changes to the *Manual on Uniform Traffic Control Devices (MUTCD)* that are important. This manual is the nation’s “bible for roadways,” and it helps ensure coast-to-coast

uniformity on roadways. Since tollways, even if privately owned, are considered to be “open to public travel,” the rules contained in the MUTCD apply to these roads as well.

Most regulatory, warning, street name, and overhead guide signs will need to meet “minimum levels of retroreflectivity” soon. Retroreflectivity is the property of a material to redirect light back toward the originating source. It is what helps make a sign conspicuous and legible. Agencies must implement an assessment or management method by January 2012. By January 22, 2015, all regulatory, warning and ground mounted guide signs must be retroreflective. The same is true for overhead guide signs by January 22, 2018.

Additionally, by January 2013, all non-breakaway sign supports within the clear zone of roads posted at 50 mph or greater shall be replaced with breakaway sign supports. The “clear zone” is the open space adjacent to the roadway that is clear, unobstructed and relatively flat. Many state highway agencies have accepted procedures for determining the required clear zones for roadways.

Safety vs. Asphalt

If a motorist were asked, “*What would benefit most motorists – 50 miles of asphalt, or 50 miles of median cable,*” the immediate response would probably be the asphalt as a possible quick solution to congestion or long commutes. Once safety is considered, however, the answer might be different. DOTs nationwide are reporting reductions in crossover crashes in the mid-90 percentile as a result of the installation of median cable barrier. The better-informed road user would chose safety over asphalt if that statistic were more widely known.

Driver safety, in the public’s view, usually consists of seatbelts, airbags and other in-vehicle safety features. By taking *Roadway Safety* into consideration and promoting the lifesaving benefits of roadway safety devices, tollways and other providers will be able to communicate to the motoring public that safety features already imbedded in their roadways – such as bright, highly reflective signs, wider stripes, guardrails, median cable and other features – make tollways among the safest roads in America.

Tollway owners should aggressively emphasize to the motoring public that their roadways are indeed “*up for the safety challenge.*”

###

On the web: ATSSA.com
The American Traffic Safety Services Association (ATSSA)
15 Riverside Parkway, Suite 100
Fredericksburg, Va. 22406
(540) 368-1701